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| APPLICATION NO.              | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|-------------|----------------------|---------------------|------------------|
| 10/735,147                   | 12/12/2003  | Benjamin Atkin       | 51289/JEJ/D359      | 1566             |
| 23363                        | 7590        | 05/10/2006           | EXAMINER            |                  |
| CHRISTIE, PARKER & HALE, LLP |             |                      | O'CONNOR, CARY E    |                  |
| PO BOX 7068                  |             |                      |                     |                  |
| PASADENA, CA 91109-7068      |             |                      | ART UNIT            | PAPER NUMBER     |
|                              |             |                      | 3732                |                  |

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/735,147             | ATKIN ET AL.        |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Cary E. O'Connor       | 3732                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 February 2006.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-25 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12, 14-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp et al (6,086,369) in view of Winston (5,853,290). Sharp shows an ultrasonic dental insert for an ultrasonic dental tool comprising a transducer 20 for generating ultrasonic vibrations, a connecting body 18 having a proximal end and a distal end, the proximal end attached to the transducer, the distal end having an engagement portion formed thereon, a handgrip 22 enveloping at least a portion of the connecting body, at least one O-ring 34, for sealing, mounted between the connecting body and the hand grip. Due to the nature of the material (it must be somewhat flexible and compressible) the O-ring would inherently provide shock absorption between the connecting body and the handgrip. An O-ring 35 is mounted on the connecting body and around the engagement portion and provides shock absorption (column 4, lines 60-64). The insert includes a tip 16 removably engaging the engagement portion. Sharp does not teach that the tip is made of plastic. Winston shows an ultrasonic tooth cleaner having a plastic tip 16 (column 4, lines 57+). Making the tips of plastic enables them to be

cheaply mass produced and thereby making them disposable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the tips of Sharp out of plastic, in view of Winston, so that the tips may be cheaply interchangeable and disposable. As to claims 3, 4, 17 and 18, note that the tip of Sharp includes an attachment portion for engaging the engagement portion and a tapered portion coupled to the attachment portion. As to claims 5 and 19, the tip of Winston includes a conduit 50" therethrough for carrying fluid. As to claims 6 and 20, Sharp shows, in Figure 4, a dental insert having a removable tip 16 and an external tube 42 attached thereto for carrying the fluid. As to claims 7 and 21, the tip of Sharp includes a groove 44 for carrying fluid. As to claims 8 and 22, note Figure 5 of Sharp. As to claims 9, 10, 23 and 24, the attachment portion of Sharp is not threaded to engage a threaded portion of the engagement portion. Winston shows, in Figure 4, a vibratory dental handpiece having a tip which has a threaded attachment portion to engage the engagement portion which is also threaded. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the engagement and attachment portions of Sharp with threads, in view of Winston, in order to provide a secure attachment between the tip and the connecting body that is less likely to come apart due to the vibrations of the instrument. As to claims 11 and 25, Sharp discloses that the engagement portion is a cylindrical wall defining a cavity and the attachment portion is pressure fit into the cavity (column 4, line 35). As to claim 12, the tapered portion of Sharp is shown, in Figure 1, including a first portion generally aligned with the connecting body and a second portion which is curved at an angle from the first portion.

As to claim 14, note column 4, second paragraph of Sharp. Regarding claim 16, the unit of Sharp inherently includes an electrical energy source and a fluid source.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp (6,086,369) in view of Winston (5,853,290) as applied to claim 1 above, and further in view of Loge et al (4,589,847). The hand grip of Sharp does not include bumps to facilitate grasping by the dental practitioner. Loge shows an ultrasonic dental handpiece comprising a hand grip 1 having a plurality of bumps formed on the outer surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the hand grip of Sharp with a plurality of bumps formed on the outer surface, as taught by Loge, in order to prevent the practitioner's hand from slipping.

***Response to Arguments***

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cary E. O'Connor whose telephone number is 571-272-4715. The examiner can normally be reached on M-Th 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Cary E. O'Connor  
Primary Examiner  
Art Unit 3732

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